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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,526	11/21/2005	Erwin Achleitner	2003P02347WOUS	8729
22116 7590 04/09/2007 SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830			EXAMINER MOULIS, THOMAS N	
			ART UNIT 3747	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		04/09/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/557,526

Applicant(s)

ACHLEITNER ET AL.

Examiner

Thomas N. Moulis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☒ Claim(s) 19 and 20 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/21/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 11 is indefinite and confusing for reciting "adjusting a first operating mode the pressure in the fuel pressure accumulator...". The phrase should read "adjusting the pressure...in a first operating mode. The same change should also be made in the last paragraph of claim 11 describing the second operating mode.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-14, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 03/023221. The reference discloses the claimed elements of a method for operating an internal combustion engine, comprising: providing a fuel pressure accumulator in order to provide a fuel volume which must be injected, the fuel volume

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having a reference pressure and a pressure in the accumulator is generated via a high-pressure pump 18 and the high-pressure pump is supplied with an adjustable fuel flow via valve 36; adjusting the pressure to the reference pressure in a first operating mode during high speed operation by regulating the fuel flow of the fuel delivered to the high-pressure pump depending on the fuel volume which must be injected and the reference pressure; and adjusting the pressure in the accumulator a second operating mode (low speed mode) to the reference pressure by setting the pressure in the fuel pressure accumulator to the reference pressure by allowing fuel to escape from the fuel pressure accumulator to a low pressure area in the event of a predetermined fuel flow.

3. Note that the second operating mode is adopted if the fuel flow is less than a first fuel flow (idle, low speed/load) and/or the first operating mode is adopted if the fuel flow exceeds a second fuel flow (high speed/load).

4. Claims 11-14, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 196 12 413. The reference discloses the claimed elements of a method for operating an internal combustion engine, comprising: providing a fuel pressure accumulator in order to provide a fuel volume which must be injected, the fuel volume having a reference pressure and a pressure in the accumulator is generated via a high-pressure pump 116 and the high-pressure pump is supplied with an adjustable fuel flow via valve 128; adjusting the pressure to the reference pressure in a first operating mode during high speed operation by regulating the fuel flow of the fuel delivered to the high-pressure pump depending on the fuel volume which must be injected and the reference

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pressure; and adjusting the pressure in the accumulator a second operating mode (low speed mode) to the reference pressure by setting the pressure in the fuel pressure accumulator to the reference pressure by allowing fuel to escape via valve 150 from the fuel pressure accumulator to a low pressure area in the event of a predetermined fuel flow.

5. Note that the second operating mode is adopted if the fuel flow is less than a first fuel flow (idle, low speed/load) and/or the first operating mode is adopted if the fuel flow exceeds a second fuel flow (high speed/load).

6. Claims 11-14, 17-18 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 197 14 489. The reference discloses the claimed elements of a method for operating an internal combustion engine, comprising: providing a fuel pressure accumulator in order to provide a fuel volume which must be injected, the fuel volume having a reference pressure and a pressure in the accumulator is generated via a high-pressure pump 1 and the high-pressure pump is supplied with an adjustable fuel flow via valve 21; adjusting the pressure to the reference pressure in a first operating mode during high speed operation by regulating the fuel flow of the fuel delivered to the high-pressure pump depending on the fuel volume which must be injected and the reference pressure; and adjusting the pressure in the accumulator a second operating mode (low speed mode) to the reference pressure by setting the pressure in the fuel pressure accumulator to the reference pressure by allowing fuel to escape from the fuel pressure accumulator via line 26 to a low pressure area in the event of a predetermined fuel flow.

7. Note that the second operating mode is adopted if the fuel flow is less than a first fuel flow and/or the first operating mode is adopted if the fuel flow exceeds a second fuel flow.

Allowable Subject Matter

8. Claims 15-16 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. Claims 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the cited documents showing fuel flow control within a fuel system using variable flow valves in arrangement with the fuel pump.

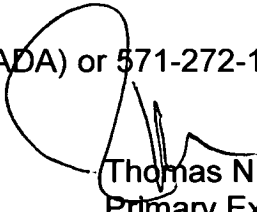
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas N. Moulis whose telephone number is 571 272 4852. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen K. Cronin can be reached on 571 272-4536. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thomas N Moulis
Primary Examiner
Art Unit 3747

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